APRIL 1947

FIREMEN

FIFTY-FIRST YEAR • NATIONAL FIRE PROTECTION ASSOCIATION

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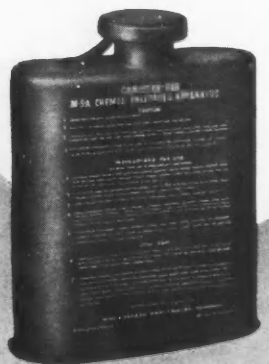

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Firemen

Volume 14 Number 4

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THE COVER PICTURE this month (*Press Association, Inc.*) shows the devastation wrought by an explosion in downtown Los Angeles, February 20. Seventeen are known dead and some 100 or more injured. Tentatively, the explosion is attributed to an electrolytic polishing process for aluminum fountain pen caps.

It appears that this particular explosion was due in some manner to use of perchloric acid. This acid has the advantage of being a powerful oxidizing agent when concentrated and hot but when cold is relatively weak, giving it considerable industrial usefulness. The material is not considered particularly dangerous at ordinary commercial concentrations, but, when in an anhydrous state (without water), it decomposes at room temperature and explodes.

While the eyes of fire officials are focused upon perchloric acid at the moment, it must be remembered that there may be obscure but equally serious hazards in other modern industrial processes. With new methods being introduced in many industries, frequently without adequate consideration of hazards that may be involved, it is imperative that fire departments be well informed regarding local industrial processes and possible hazards, in order that their vigilance may better safeguard the community.

For further details see page 18.

MANY persons confuse the National Fire Protection Association with insurance or underwriting agencies. The National Fire Protection Association is not in the fire insurance business. It is a non-profit educational association preparing fire safety standards and good practice recommendations through the activity of more than fifty technical committees consisting of qualified experts on various phases of fire protection. Numerous underwriting organizations including the National Board of Fire Underwriters (representing a group of capital stock fire insurance companies) commonly adopt NFPA standards for use by fire insurance inspectors. Many states and municipalities also have adopted NFPA standards as a basis for their laws and regulations on fire safety.

The NFPA Executive Office is the clearing house for fire protection information gathered from the corners of the world through the Association's international membership. Members of the Executive Office staff are technical experts and specialists in various phases of fire protection. Daily, their judgment as to what constitutes safety to life and property from fire under a vast variety of situations is sought out. Opinions designed to effect safety are given without reference to possible effect upon insurance gradings of properties or insurance classifications of communities. Rulings on insurance matters must be sought from the insurance inspection department having jurisdiction in each locality, whether it be an organization representing insurance companies paying dividends to stockholders (stock companies), or an organization of mutual insurance companies paying dividends to policyholders. Most leading fire insurance organizations and leading individual insurance engineers hold memberships in the NFPA and are active on NFPA committees. They receive NFPA publications and service along with fire departments, governmental agencies and industrial members of NFPA.

Industry, ever fearful of interruption by fire, has over the years given generous support to the field service activities of the NFPA. It is such support that to a large measure makes possible FIREMEN magazine and other services to fire departments that cost far more than the limited revenue received from advertising.

Occasionally, the editors of FIREMEN receive letters from fire department members advancing the strange opinion that the Association is making money on this publication. Such persons have little conception of the cost of magazine printing and mailing, the cost of paper, of cuts and illustrations. The publication has never covered direct publication costs, not to mention the salaries of the editorial staff and other office employees working on the publication. It is published as an educational service to paid and volunteer fire department members of the Association who wish to advance their profession or their avocation as the case may be.

Through this exchange of information about good fire department practices it is believed that lives and property can be saved and thus the publication seeks to carry out the purpose of the National Fire Protection Association: "To promote the science and improve the methods of fire protection and prevention; to obtain and circulate information on these subjects and to secure the cooperation of its members in establishing proper safeguards against loss of life and property by fire."

SALVAGE WORK

by Vernon F. Braden, Salvage Company 27 "A," Los Angeles, California, Fire Department

Reprinted by permission of the Los Angeles Firemen's Relief Association, Inc., owners and publishers of the "Firemen's Grapevine," in which this article originally appeared in the February 1947 issue.

SALVAGE WORK has been defined as the protection of the building and contents involved in a fire against unnecessary damage due to water, smoke, and other elements. For the purposes of this treatment of salvage operations, this definition can be used as a basis. It will later be broken down, enlarged upon, and explained in an attempt to cover the field of salvage.

It has been noted in recent years that in spite of the many improvements in fire department apparatus, resulting in quicker response and more efficient fire extinguishing operations; in spite of a better type of personnel in fire departments and the establishment of rigorous and technical in-service training programs by fire departments; in spite of improvements made in water supply and alarm systems; the annual fire loss in the United States is still rising at an alarming rate. It is true that to a great extent this annual loss can be lowered by increased activity in the field of fire prevention. However, since it has been estimated that only part of this loss is due to the fire itself and the other percent is due to damage resulting from extinguishing operations, it can be readily seen that the field of salvage presents almost unlimited possibilities. Through increased activity in salvage work, the fire departments of this country can render a most valuable service to the citizens.

PUBLIC RELATIONS VALUE

Water damage is the cause of a great proportion of the loss, so it must be admitted that salvage is rightfully the operation of the fire departments, since the fire departments use the water. To operate at maximum efficiency, a fire department must take steps to prevent excessive water damage.

The public relations value of salvage work is alone enough to give it an important place among the various phases of fire fighting. Not all the property in a city is insured, and much of it is insured for far less than its actual value. Savings resulting from efficient salvage work will win many staunch friends for the fire department. Also, since the average layman knows little or nothing of fire fighting practices and techniques, it is the work of the salvage company that takes his eye — undamaged furniture in a room gutted by fire; prized possessions such as heirlooms, pictures, and jewelry protected under salvage covers; all of the many gallons of water directed into the building removed and the premises left as clean as possible under the circumstances. Many of the letters of commendation received by the administration office from grateful owners whose property has been involved in fires will attest to this fact.

Any number of examples of the public relations value of salvage work could be cited. The following is one picked at random. In the early part of 1944, Salvage 27 responded to a second alarm fire at 1003 North Mariposa Avenue. The fire was in a 2-story apartment house built U-shaped around an open center court. The entire building was covered by a common roof, without a single fire stop or partition in the vast attic expanse. The fire resulted when burning brands from an incinerator at the rear of the building landed on the combustible roof. By the time the fire was noticed and the fire department called, the entire attic was involved.

On arrival, the salvage company laid covers to protect all the upstairs apartments, starting at the rear and working forward. As an added precaution, the apartments on the lower floor were also covered. Later, drains were constructed to divert from the building the water poured into the attic by the many engine companies combating the blaze.

In one of the upstairs rear corner apartments, there was a light wood spinet piano, and all the occupants of the building seemed to know of this. After the fire was completly extinguished and the overhauling operations about finished, they came up to check on this piano. Each one was amazed to unexpectedly find it in as perfect condition as before the fire. Much favorable comment was expressed as to the efficiency of the fire department.

However, to give the other side of the picture, it must be admitted that a salvage company is unproductive in approximately 90 percent of the alarms to which it responds. For this reason, some authorities do not advocate the establishment of separate units to do salvage work except in locations where more than 800 alarms are received annually.*

HISTORY OF SALVAGE WORK

The performing of certain salvage duties in connection with the extinguishment of fire can be traced back to the seventeenth century in London where fire insurance companies maintained private fire fighting units in an attempt to save property of their policy holders. This saving was effected by moving as much of the contents as was possible from the fire area to a place of safety. This was probably salvage work in its crudest form, but it was undoubtedly as far advanced as were the other phases of fire fighting during the same era. The service was extended only to policy holders, those actually paying for protection. To differentiate between policy holders and non-policy holders, a distinguishing insignia was attached to the house or place of business of the insured.

In America, in the early days of the paid fire department, what little salvage effected was accomplished by unorganized bands of neighbors seeking to assist their friends in the event of fire. Such a system resulted in much confusion. The kindly neighbors undoubtedly had the best intentions, but their haphazard efforts only interfered with the work of the organized fire fighting units and as a result the loss

**Work performed by service ladder trucks may show a similar unproductiveness at alarms to which such apparatus responds. Water towers likewise work at only a few fires per year.*— Ed.

was increased. Soon the fire insurance companies of America saw the need of trained corps of salvage workers if any appreciable saving of property was to be effected. For from a simple business standpoint, larger fire losses made for increased insurance rates, and these in turn made for increased difficulty in the selling of fire insurance.

In the early 1900's, under the leadership of the National Board of Fire Underwriters,* such salvage corps were established in many eastern American cities, the entire cost of the establishment and maintenance being met by the fire insurance companies. The service differed from that of the earlier London units in that here it was extended to everyone, insured and non-insured alike. In a few cities, these privately owned salvage companies still exist, supported in whole or in part by contributions made by the insurance companies. In Worcester, Mass., a salvage corps is operated and the expense is borne equally by the citizens and the insurance companies.

Salvage work in the Los Angeles Fire Department was instituted late in 1923, when 500 salvage covers and two Stutz 4-cylinder salvage wagons were purchased.

The Los Angeles Fire Department now has nine salvage companies, three of which are fully manned, and these respond to most structural fires. In addition, all the truck companies still carry salvage covers and do much salvage work, particularly in the outlying districts.

After some years of operating under the privately owned system, the insurance companies decided that it was unjust, since all the expense of installing and operating the units was borne by the insured, and the non-insured derived equal benefits. In 1930, the NBFU announced that no more private units would be installed, and in the years following many of the units previously installed were disbanded.

This action threw the weight of the responsibility for performing salvage work directly upon the fire departments. At the outset, many departments were reluctant to accept this responsibility, the two chief arguments against such acceptance being the idea that salvage operations were not generally considered a fire department function, and, secondly, the lack of money. The second argument was rendered worthless when progressive fire department officials realized that, for the majority of cities, it would not be necessary to set up separate salvage units, and that sufficient men were already available for the work in the engine and particularly the truck companies. Only training and equipment were necessary and these did not involve the expenditure of excessive amounts. The first argument has never been entirely overcome, but today most progressive fire department officials recognize that salvage operations at fires constitute an important factor in the reduction of fire losses, something in which every present day department is vitally interested.

Underwriters' salvage organizations antedate the present century. The Boston Protective Department, for example, was in service at the Great Boston Conflagration of 1872. — Ed.

Salvage covers are shown protecting office equipment after the fire involving combustible trim in this warehouse in Memphis, Tenn.

SALVAGE TODAY

In the final analysis, it makes little difference to the citizens of any community whether salvage operations are carried on by the municipal fire department or by privately owned salvage units. Since insurance rates are based largely on fire losses, the citizens in any event pay for the work of the salvage units, either by taxation or through increased insurance rates. If no salvage work is done, the citizens are the losers.

Today, in most cities, truck companies have the duty of preventing excessive water damage and of generally overhauling after a fire. Separate salvage squads are being used to good advantage in many cities, outstanding examples being Los Angeles, Calif., and Dallas, Texas. In some cities, no salvage work is presently being done due to the short-sightedness of fire department officials. A notorious example is the city of New Orleans, La., which, in 1941, had an opportunity to purchase for $1.00 all the salvage equipment of the insurance companies' units then being disbanded, and refused to make the purchase.

Some cities have found it practical to have certain previously designated firemen respond on special calls as members of special squads to do salvage work. In Los Angeles, the fire department *Manual of Operations* provides that when one-man salvage units are called to fires where covers are needed quickly, the entire engine crew will respond with the same, leaving the engineer in quarters to look after the apparatus and to respond to other alarms if called. Officers calling for these units will designate if the whole crew or apparatus only is needed.

At present, the NBFU standards do not call for separate salvage companies, probably because of the still somewhat prevalent idea that salvage work should be maintained by the insurance companies. In Texas, where standards are set and the insurance rates established by a department of the state government, the Texas State Fire Insurance Department, the rule being followed in determining how many salvage companies should be placed in service calls

International

A big fire takes a lot of water. Here the salvage companies are discharging the excess out the windows by means of chutes.

for one company in cities of 200,000 population, and one additional company for each additional 200,000 population. But, as has been previously stated, in spite of the definite advancements which have been made in the field of salvage work, there still remains room for expansion and improvement.

BUILDING INSPECTION FROM A SALVAGE STANDPOINT

As with every other phase of fire fighting, efficiency in salvage must be attained before the alarm sounds, if any value is to be realized from salvage operations at the actual fire. To begin with, salvage work is that of a trained fireman. In the Los Angeles Fire Department, all newly appointed men are given instruction and training in salvage during their stay at the drill tower. In addition, in most houses where salvage companies are located, members of engine and truck companies participate in monthly salvage drills conducted by the salvage officer. In some battalions, the fully-manned salvage companies have been sent to each engine house to stage salvage drills in which all members participate. In these, and in many other ways, is a determined attempt made to provide the trained men necessary to do the important salvage work on the fire ground.

One of the most important factors contributing to efficient salvage is a complete knowledge on the part of the salvage officer as to conditions within his first-in district, which knowledge can best be obtained by thorough building inspections. During the progress of such inspections, the salvage problem must be considered. The salvage officer must keep his eyes open for conditions that prevent efficient salvage operations in the event of fires. Are the shelves built to the ceiling or directly against the wall? These make for difficult covering. Water following the wall will damage much of the stock on the shelves. There should be enough room between the top shelf and the ceiling to permit salvagemen to place their covers easily and quickly. Also, the shelves should be set out from the wall an inch or so in order that the covers may be tucked down over the top shelf to better control the direction of the water. A wire backing on the shelves will keep the stock safe from much water damage.

Is valuable stock displayed on top of cases? There is little time to remove this during actual salvage work, and it adds difficulty to the placing of covers to attain maximum protection. Stock piled too high with too little open space at the top also hinders efficient salvage work. The more covers that can be spread in the short amount of time available, the more protection will be afforded.

Is the stock skidded, or, if not, will it absorb water and tip over, thus causing additional damage? Authorities agree that skidding of stock six inches in the basement and two inches on upper floors will afford ample protection against water damage in over 90 percent of the fires liable to occur. Is easily damaged and valuable merchandise stacked on the floors? This only adds to water damage. Water will cause cardboard containers to collapse and the entire stock will topple into the water.

The salvage officer should encourage cooperation on the part of business men and shop keepers by informing them of salvage operations so that they can arrange stock and fixtures in such a manner that salvagemen can efficiently protect them against water damage should the need arise. The public should be informed on water damage prevention as well as fire prevention.

Many other salvage problems must be considered by the salvage officer during the course of his inspection. He must look for and determine the ways and means of removing water from the floors of the building. He should make a note of the location of drains, scuppers or other installations for this purpose. If the building is equipped with automatic sprinklers, he should locate the control valves and see that these are clearly marked so that they could easily be found in the event of fire. In addition, he must know the effect water will have on the contents of the building.

A continuation of Mr. Braden's article, dealing with salvage operations at fires, will appear in the near future.

1946 Fire Losses

U.S. fire losses for 1946 totaled $561,487,000, falling just short of the 1926 peak of $561,980,751, according to the National Board of Fire Underwriters. February losses this year were $64,247,000, as compared to $51,759,000 for February, 1946.

Philadelphia's New Boosters

PHILADELPHIA, PA., is placing in service a fleet of 20 trucks with Hale booster pumps replacing hose and chemical trucks with certain engine companies. The new apparatus, built by the Approved Fire Equipment Co. on Ford chassis, supplies combination fog nozzles on both booster and 1½-inch hose, backed up by a 2½-inch supply line from hydrant or regular pumper. Chief Engineer John C. Cost, of the Philadelphia Bureau of Fire, says 20 pounds hydrant pressure will back up the two leader lines.

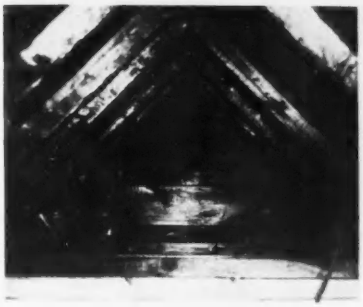
The handsome hose and booster truck of Engine Company 17, Philadelphia.

Furniture Factory Fire

CHIEF E. H. LYNAM, of the Sumter, S. C., Fire Department, reports an extremely interesting fire which destroyed the spray finishing and shipping departments of a large furniture factory in that city, February 5. An employee thawing frozen pipes with an acetylene torch started the fire in an unsprinklered space beneath the building. Employees battled the flames for fifteen minutes before calling the fire department. By that time, fire had burst through to the spray finishing department and was beyond control of automatic sprinklers inside the building.

The fire department used thirteen hose streams in confining the fire to the units involved on arrival, with the help of the fire walls shown in the picture. Considerable help was obtained from the nearby Williams Furniture Corporation fire brigade of fifty men.

Chief Lynam points out that fire brigade men may be seen manning the hose streams in the photograph. The city firemen were working inside.



Sumter, S. C. furniture factory fire. Loss estimated at $100,000.

Only a Small Blaze!

(Two pictures at left)

NEWSPAPER headlines almost daily proclaim a lurid story of some major fire, and yet little attention is given to the fact that throughout the land each day skillful fire fighters, using modern fire fighting appliances such as fog nozzles on small hose, bring several thousand fires under control with minimum loss. Many buildings which have been subject to an outbreak of fire continue to serve their occupants after a brief visit from the firemen. We are indebted to the Rockwood Sprinkler Company, of Worcester, Mass., for the photographs of a typical "stop" made with a 1-inch fog nozzle on a booster line. The fire occurred in Concord, Mass., and, according to Chief Harry E. Tuttle, looked so threatening that two 2½-inch lines were dropped from a hydrant 500 feet from the house.

The fire is believed to have been burning for more than 30 minutes before the alarm was received. When firemen arrived, smoke was coming from an outside wall which was opened to locate the fire in the attic. A fog nozzle from a 400-gallon booster tank was then taken in the front door and a ladder extended into a small opening leading into the attic. Cooling down the opening with water-fog, the nozzle was pushed into the attic and the fire extinguished in a few seconds with almost no water damage.

Not much of a fire, some folks will say. They are correct. It was not much of a fire because the fog nozzle on the booster line was able to knock down the blaze before it spread and without application of large quantities of water from the big lines.

Strategy Plans Part of Fire Training

Part of the fire training job is to prepare plans in advance for fighting large fires that may be anticipated. Capt. Edward P. Durkin, Bureau of Training and Instruction of the Madison, Wis., Fire Department, has reported to the NFPA on several large fires for which his department had made plans in advance to make maximum use of available equipment. One of these fires is discussed here. Note how the first attempts at the fire were directed toward cutting off the upward spread and that necessary steps were taken to protect all exposures.

FIRE starting in the basement of a restaurant involved two 75-year-old 2-story brick-joisted mercantile buildings sandwiched between taller business blocks. The subject of fire in these buildings had been discussed and attack plans formulated at previous fire department officers' schools. In these discussions, certain preliminary plans of operation had been developed which appeared logical in theory. The plans were developed with regard to protection of exposures, condition of the structures, including age and type of construction, fire prevention inspection reports, water supply and hydrant distribution. All these factors had a bearing on the efficient placement of apparatus in event of fire.

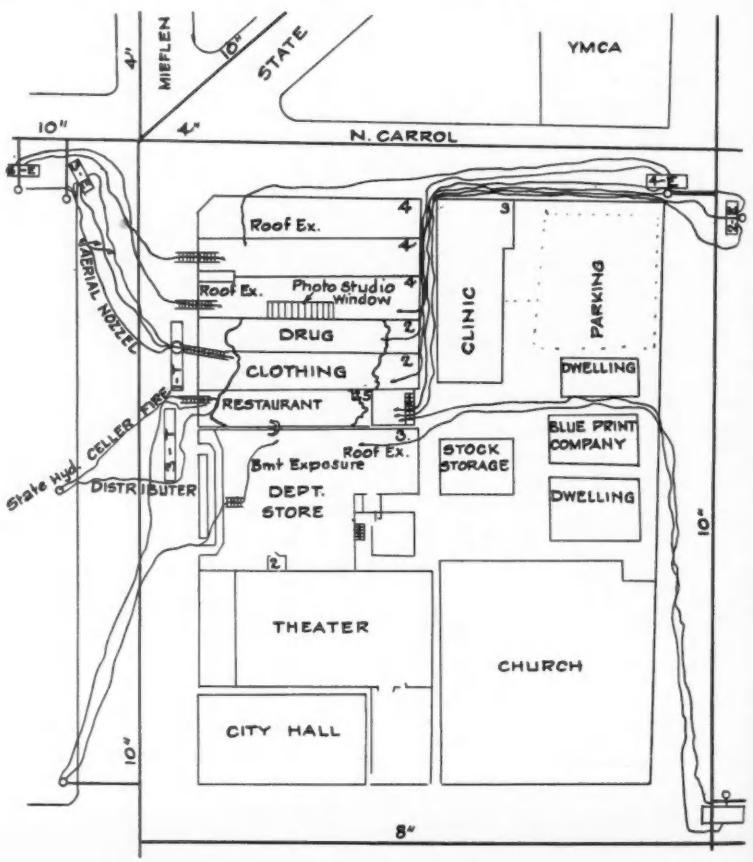
The restaurant building, where the fire originated, was of brick and wooden frame, with a tile floor laid on wooden joists. The only entrance to the basement was in the extreme rear of the building and opening from a 15-foot service alley. Unprotected floor openings led to the upper floor of each building.

Merchant police had smelled smoke in the neighborhood for an hour before the first alarm was received by telephone from the city police at 3:16 A.M. Three engine and two truck companies responded under Asst. Chief Leonard Sime. As it was apparent that the basement was heavily involved, a car was dispatched at once for Chief Edward J. Page. Meanwhile, Engine 1 worked in the front door and got a cellar pipe and a distributor in operation through floor and dead lights. Engine 2 took the rear and laid two lines through the service alley into the basement and attempted to advance forward through the basement. Engine 3 laid one line to the roof by ladder, one to the second floor, and, as manpower became available, one line to the basement of an adjoining department store.

Truck 3 went to the roof and pulled off skylights for ventilation. Heavy fog held the smoke close to the ground, making working conditions extremely difficult and compelled hose crews to work in masks. Truck 1 had opened floors for cellar pipes and the ladder pipe was placed in position to protect exposures. The balance of the available hose was used by Engine 3 to lay three lines to the ladder pipe.

The initial fire appeared to be in the front of the basement, but, as the fire continued to work upward through the building, a second alarm was struck at 4:48 A.M., bringing Engine 4 and Truck 4. These companies laid lines through the alley to the roof and into an adjoining store. There was a 16- x 20-foot plain glass window in a photographer's studio overlooking the roofs of the burning buildings. This constituted a serious hazard to the adjoining 4-story building when the fire got through the roofs. At 6:15 A.M., a third alarm brought pumper-ladder truck No. 6 which provided two lines to the roof of this exposure. After the fire started to come through the roofs, the aerial ladder pipe was put into operation. Hose crews had been backed out of the burning buildings and lines were being worked at various vantage points to hold the fire.

At 6:36 A.M., a fourth alarm brought Engine 7, which laid two additional lines to cover exposures at the rear, making a total of 17 lines supplying 15 streams. One engine company, plus reserve apparatus, remained in quarters to cover the city, which includes the Wisconsin State Capitol and the University of Wisconsin. Little outside help was readily available and, as soon as it became apparent that the fire was going to be held, apparatus that could be spared was reloaded and readied for further response. Two 1½-inch watch lines were left until late evening when observation justified the removal of this equipment. Because of a thorough job of overhaul of the debris, no recall for rekindling was necessary. The loss was approximately $80,000.



He Blew His Horn but Help Came Too Late!

THE fact that persons discovering fires often do unpredictable things is one reason why so many fire officials recommend automatic alarm systems. Chief John C. Gilatt, of Leicester, Mass., reports an interesting fire in a machinery warehouse where a delayed alarm played a major role in providing a total loss. The owner observed the fire from his home at 3:40 A.M. Although he had a phone in his home he got into his auto and blew his horn to get someone to call the fire department.

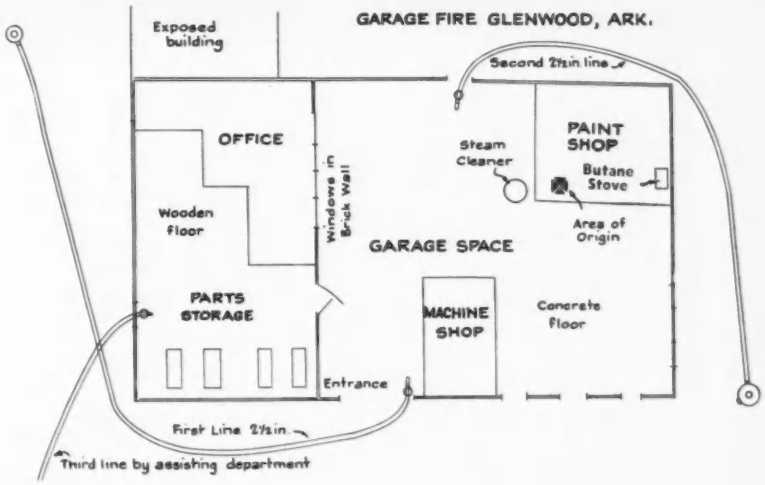
Meanwhile the fire spread from the first floor up open stairways to the third floor and burned the roof joists, causing the slate roof to collapse. Strangely enough, the building was piped for automatic sprinklers, but for some unexplained reason the owner had delayed having a connection made to the town water supply.

Pumper Relay Too Late to Save School Dormitory

ON February 7, fire was discovered at 3:35 A.M. in the basement of a 3-story dormitory of an industrial school at Downington, Pa., housing seventy students and teachers. It was known that the oil burner needed attention but there had been difficulty in obtaining service. Although the stairways were enclosed, the fire spread upward through partitions as volunteer fire companies were making a pumper relay from a 24- x 24-foot cistern or water hole 900 feet distant. This was the only source of supply. Some time was lost when one pumper bogged down at the water hole. Another pumper was badly damaged when it encountered an unseen hole in the lawn.

Captain W. H. Backenstose, of Alert Fire Company No. 1, furnished a diagram of the pumper relay used to supply three streams at an elevation averaging 80 feet above the source of supply. With this layout, the two pumpers together were required to develop about 285 pounds pressure to deliver more than 300 gpm, 1,000 feet to the fire.

The damage from the fire was estimated at $85,000.



Garage Destroyed at Glenwood, Arkansas

IT is believed that butane gas from an unlighted stove filled the garage paint shop and was ignited by a steam cleaner flame just outside the shop. A few days before, the owner had noted the open heater turned on but not burning. Chief Jack Gardner and his men attempted to hold the fire in the paint shop with a 2½-inch line from each side, but there was too much fire and flames spread through unprotected door and window openings into the parts department and office. It was believed that had fog nozzles been available at the start, the lines might have been advanced to extinguish the fire.

New Haven, Conn., School Fire

CHIEF PAUL HEINZ, of New Haven, Conn., reports an interesting stop of a fire in a very old parochial school building during near zero weather in late February. The building had been closed for three days prior to 5:48 Monday morning when pent up smoke and hot gases exploded and police and neighbors observed fire coming from all windows of the 2½-story brick joisted structure. The building was heated by an automatic oil furnace in the open cellar. Open stairs extended from the cellar to the second floor with only a frame door and enclosure for the cellar stairs.

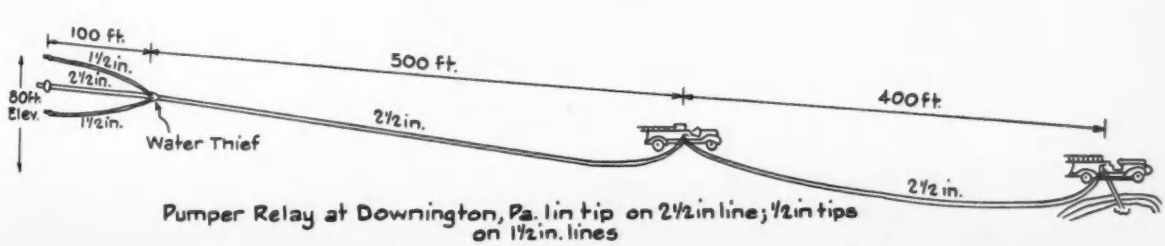
Eight engines, three ladders, and a deck gun truck responded. Hand lines were used to cool off the interior of the second floor to enable men to enter and remove metal ceilings. The fire was stopped at this point and the total damage, despite the headway of the fire, was estimated at only 28 percent of the value involved. Chief Heinz supports the idea that heating plants of schools should be located outside main buildings wherever practicable.

Parents Sentenced after Unattended Children Set Fire

THE practice of leaving small children alone at home while the parents are at work or seeking entertainment is one of the chief reasons for the large number of children burned to death each year.

According to Ontario Fire Marshal W. J. Scott, in previous cases, where children have lost their lives in fires in that province, both father and mother have received lengthy jail sentences. Recently, however, a couple was found guilty of leaving their five children alone while they visited a beverage establishment during which time one of the children started a small fire.

Although, fortunately, this was extinguished without loss of life, the father was sentenced to six months in jail. The mother was bound over by the court to keep the peace.



Pumper Relay at Downington, Pa. 1in tip on 2½in line; ½in tips on 1½in. lines

U. S. Forest Service Photo Lower Picture, *Pictures, Inc.*

Prison Inmates Flown to Battle Forest Fire

by James McCoy

Mr. McCoy is editor of the "Spectator," weekly publication of the State Prison of Southern Michigan. Written and printed by the inmates, the "Spectator" has a circulation of 7500.

Pictures of the San Quentin men flying in to the fire zone were unfortunately not available. San Quentin's warden, Clinton T. Duffy, explained that "no pictures were ever taken at any of the fire sites; the boys were just out there fighting and doing an excellent job."

THE California service for fire fighting has always received full co-operation from the government and civilians, but the one manpower source in which the service has come to place utmost confidence is the trained firemen of San Quentin prison.

During the early part of September 1946, a group of these now expert fire-eaters had just returned from a stiff battle against flames that swept the slopes of Mt. Shasta. They were, nevertheless, alerted to answer a call for transfer to a point near Ukiah, Calif. Here the latest in the steadily increasing series of brush and forest fire was reported to have broken out.

At 2 A.M., seventeen men boarded a truck and were sped 50 miles from their camp to the Montague Airport. A C-47 Army transport plane, dispatched there from Hamilton Field at the urgent request of the Forestry Service, was waiting.

The men ordered aboard were given terse instructions in the handling of parachute harness.

Roaring through cold clouds at 10,000 feet, the plane swept past 14,000-foot Mt. Shasta, "Ghost of the Siskiyous," over rivers, valleys, lakes, and the heavily timbered acres that comprise part of California's prized park areas.

A heavy fog hung low over Ukiah and the plane circled tirelessly until a narrow opening broke in the mist. Dropping swiftly, the plane landed. The San Quentin prison fire crew realized the seriousness of their position seconds before in the air. Fire engines and police emergency cars were standing by with crash equipment ready.

The men followed long, twisting trails to a point near where the fire was burning. Thousands of acres lay devastated and valuable timber had been destroyed. Their battle went on through one night, then by day. Another night and the spread of flames was slowed and stopped.

The California Forest Service reported the highest praise for the work done by the prisoners and described the quick control of the fire as an expert job which saved thousands of acres.

This was by no means the first time that California prisoners have served in battling forest fires. Exactly two years ago, appeals for firemen blared over loudspeakers in the prison yard and men swarmed into the warden's office to volunteer. In less than an hour, crews were on their way to save Mendocino's flaming redwood forests.

At that time, Warden Clinton T. Duffy remained at his office until after midnight, supervising the selecting and equipping of men. About "his boys," Mr. Duffy has this to say, "Fire fighting is exhausting work calling for endurance of the most grueling kind. It is work which many of our men have previously experienced. The rewards are burns, long hours without rest, poison oak infection for many, and a lot of other unpleasant things, but the response to my appeal far exceeded the number of requested men."

The record of prisoners doing this fine work should do much to dissipate the current incorrect opinion which the average citizen holds toward prisoners.

For just as prisoners volunteered for military service; acted as human guinea pigs for tests on the use of dangerous drugs in the study of malaria; they stand ready to serve in time of national emergency.

Here's What They Did —

AN EASTERN AIR LINES plane was en route to Winston-Salem, N. C., on January 12. The weather was terrible — rain falling in buckets, a thick fog hanging over the foothills to the Blue Ridge Mountains. To complicate matters further, it was believed that the unfortunate pilot was being seriously fouled by a freak radio condition which affected his radio-compass direction finder.

The aircraft, a Douglas commercial transport designated DC-3, had a crew of three and sixteen passengers. The flight originated in Detroit and had made one stopover in Cleveland.

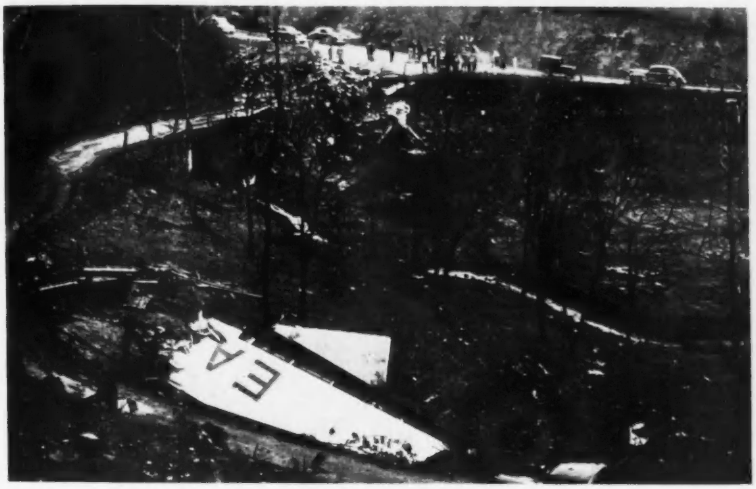
The plane was obviously lost, nearly 60 miles off course when it crashed near Fries, Va., at 1:40 A.M. The crash location was fortunately at a road intersection in a farm area. Two nearby inhabitants were aroused by the explosion and rushed to the scene while another neighbor called the Galax Fire Department.

When the Galax volunteers arrived, the plane was totally involved. They immediately placed a booster line in action and, using 1,200 gallons of foam with water supplied from a nearby creek, applied the chemical where it was most effective.

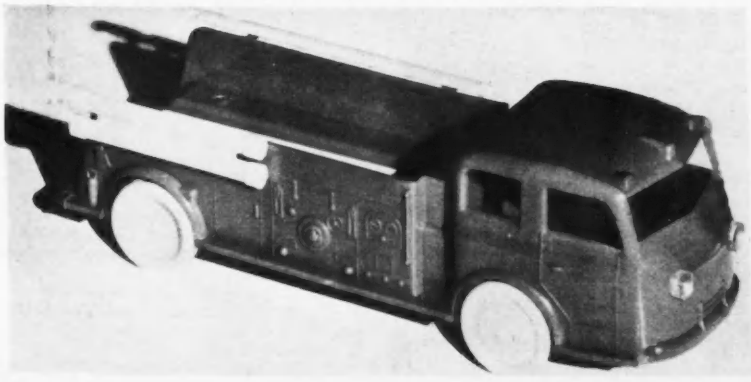
The time element involved was particularly interesting. The crash occurred at 1:40 A.M. The alarm was given at 1:45, the fire department reached the scene at 2:10 after a 10-mile run; all the victims were removed in 45 minutes from time of arrival, and one man was rescued.

Beat this, if you can, under similar adverse conditions and let us know. We will tell your story, too. In the meantime, include crash fire fighting in your training program.

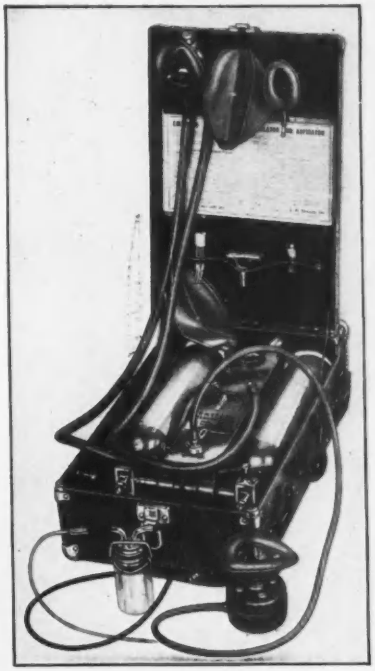
—George H. Tryon, Secretary, NFPA Committee on Aviation and Airport Fire Protection.



Although this isn't the latest cab-over-engine pumper by American LaFrance, it looks very much like it. California Moulders, Inc., Los Angeles, designed this 6-inch model, reproducing in great detail the gauges and connections familiar to the firemen. The plastic truck has dual rear wheels, removable ladders that join together, suction hose, and a glass-enclosed cab. A companion aerial ladder is also available.



When Seconds Count
In Saving Human Life
be sure you have an



EMERSON RESUSCITATOR

Leading fire departments throughout the country have from actual experience with serious cases given the Emerson resuscitator, inhalator, and aspirator the reputation of being America's finest lifesaving instrument.

Your men and community are entitled to this protection. Write for literature or a demonstration.

J. H. EMERSON CO.
24 Cottage Park Ave.,
Cambridge, Mass.
Representatives in Principal Cities

NOSE of a Bloodhound
SPEED of a Tiger

That's the New Underwriters' Approved Smoke Detector

A wisp of smoke from a faintly smoldering fire is all it takes to operate a C-O-Two Smoke Detector. The Detector sniffs air ***continually*** *from all protected areas. If smoke is present, an alarm sounds and, like a tiger, a C-O-Two fire extinguishing system springs into action; the fire is smothered in seconds with a cloud of cold, dry, inert carbon dioxide gas. A few minutes later the area is ready for use again; no after-fire clean-up is necessary. Carbon dioxide won't harm finishes, fabrics or equipment. It is a non-conductor and can be used safely on live electric equipment. Snuffs out flammable liquid fires.*

Investigate this new and modern method of detecting and extinguishing fire at its start. C-O-Two Smoke Detectors are not dependent on heat for operation. They are especially designed for fast detection of slow smoldering fires in record vaults and storage spaces.

C-O-TWO

C-O-TWO FIRE EQUIPMENT COMPANY

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Sales and Service in the Principal Cities of United States and Canada

AFFILIATED WITH PYRENE MANUFACTURING COMPANY

Our Readers Ask . . .

Gentlemen:

What is the most suitable fire extinguishing agent to use in extinguishing burning paraffin wax in a tank or when it has been spilled over on the floor?

Any information from your department will be a great help.

GEORGE JACKSON, *Plant Chief*
English Electric Co. of Canada, Ltd.

Dear Chief Jackson:

For extinguishing burning paraffin wax in a tank or when spilled on the floor, there are various extinguishing agents that might be suitable. I think that the carbon dioxide or the dry chemical type of extinguishers would be effective in extinguishing the burning paraffin, but there might be some danger of re-ignition in case there were any hot metal objects or glowing woodwork left after the extinguisher charge was exhausted. A fine water spray or fog nozzle, I think, could be used to advantage on such a fire, being careful, of course, not to direct the nozzle into the tank of paraffin in such a way as to agitate the liquid or force the water underneath the surface.

ROBERT S. MOULTON
Technical Secretary
National Fire Protection Association

Our Readers Say

WHILE fire losses are going up all over the country, Chester County, Pa., shows losses taking a rapid drop — 43 percent over the previous year. Fire Marshal W. J. McInerney writes with deserved pride of his county's fire prevention efforts:

"In the last issue of publication (of FIREMEN) I noted the Delaware state fire report. I was very much interested in the figure and I am enclosing a clipping of the Chester County losses.

"We are very proud of this report as it shows there is one county in this country where fire prevention is surely paying off."

The clipping reads, in part:

"Fire Marshal McInerney, commenting on the report, said the big reduction in fire loss was due mainly to the untiring efforts of the County Fire Prevention Committee and firemen in general in bringing before the public the danger of fire and in the practice of fire prevention at all times."

"County volunteer fire companies were in service 1,262 hours, using 520 gallons of chemicals and 69,725 gallons of water from booster tanks. They stretched 135,170 feet of hose, raised 5,167 feet of ladders, and traveled 4,980 miles to and from the scene of blazes.

"A total of 10,915 men answered roll calls.

Dear Sir:

We have arranged for the entire North Wilkesboro Volunteer Fire Department to visit all the plants in this area so that all members might be familiar with them. The men check for exits, fire doors, fire equipment, fire switches, danger spots, and other information necessary to fight a fire in the plant.

These visits are scheduled so that one plant is contacted each week. The visits are at night, therefore, they do not interrupt the production schedule and it is easier for the firemen to attend.

Although this program has been operating only a short time and has yet to prove its value, we have been able to increase the status of the fire department in the eyes of our manufacturers and largest taxpayers.

FORREST E. JONES, *Sec.-Mgr.*
Wilkes, N. C., Chamber of Commerce

Fire School Notices

April 22—23: 3rd Arson Investigation and Detection School, Lafayette, at Purdue University.

May 20–23: 23rd Iowa Fire School at Marshalltown in the Municipal Coliseum.

May 26–29: 51st Annual Meeting of the NFPA at the Palmer House, Chicago.

May 26–28: New Mexico State Firemen's Association, Albuquerque.

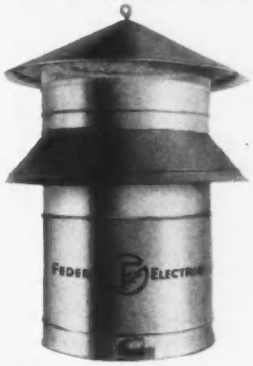
May 26–28: Conference and fire school of the Oregon Fire Chiefs' Association at the Columbia Gorge Hotel, near Hood River.

June 10–13: Illinois Fire College at the University of Illinois.

D. C. Training Text

THE District of Columbia Fire Department, under Chief Clement Murphy, has issued a new 114-page training manual entitled *Official Training Procedure — D. C. Fire Department.* This manual was prepared by members of the Training Division under Battalion Chief R. E. S. Boss and is noteworthy as perhaps the best illustrated training manual that has been issued by any fire department in recent years. All evolutions and operations are shown in cleverly executed drawings by Lieut. M. C. Fairall of the Training Division. One outstanding feature is a series of drawings on ladder drills, showing only position of hands and feet of the men.

REPLACEMENT
IS THE *KEY* TO GOOD MAINTENANCE!



A new paint job may make your old siren *look* new, but it won't make it work any better! Now is the time to replace that worn-out siren with a new all-powerful, dependable Federal Siren. The long-range warning tones of a Federal General Alarm Siren instantly alert the whole area. And for added reliability, precision-built Federal Sirens in weather-proof housing, are dynamically balanced and durably constructed for extra long life.

FEDERAL ELECTRIC
***VERTICAL* GENERAL ALARM SIRENS**

Constructed with motors especially designed for alarm service, Federal Vertical Sirens are exceptional in pick-up, tone power and general performance. Federal Sirens are capable of exceptionally high speed, are light in weight, convenient to install and economical to operate. They can be furnished in various capacities for any type of current.

Make sure your next siren is superior—a* FEDERAL *Siren

Write for our bulletin on Vertical Alarm Sirens No. 78-B

FEDERAL ELECTRIC COMPANY, INC.
ELECTRICAL EQUIPMENT DIVISION
8717 SOUTH STATE STREET CHICAGO 19, ILLINOIS

The MACKINAW Coat
Gives You Protection and Comfort in Your Hazardous Work of Safeguarding Life and Property against FIRE

Mackinaw Coats and Protective Clothing
by Midwestern

Note the durability, flexibility. Reinforced at every point of strain and wear. Made for protection, comfort, and long wear.

Our policy remains as always . . . only the finest material is used in Midwestern products.

Raw materials to meet our rigid specifications are not available in sufficient quantities to supply the demand for Midwestern products. However, in order to deliver without delay, we refuse to buy inferior materials that will lessen the service you have a right to expect in Mackinaw Coats and all other Midwestern clothing.

As a result, we are unable to keep pace with the demand for immediate deliveries. But we pledge ourselves to maintain our reputation, to merit your confidence, by continuing to use only the highest grade materials.

You'll agree that the extra protection, built-in comfort, and longer wear you get in Midwestern clothing make it well worth while placing your order for scheduling into our production as soon as possible. There is no substitute for quality.

For complete information see your Midwestern Dealer or write factory direct.

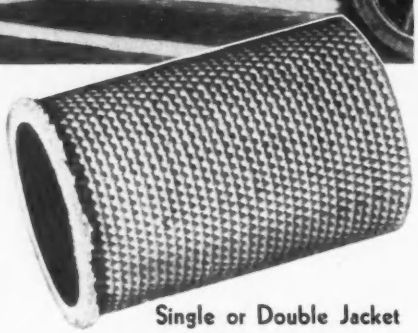
NONE GENUINE WITHOUT THIS TRADE MARK

MIDWESTERN MFG. CO. MACKINAW ILLINOIS
***Manufacturers of the Famous* MACKINAW Coats**

GOODALL

COTTON RUBBER LINED

FIRE HOSE



Single or Double Jacket

Firemen who have had long experience with Goodall hose will vouch for its on-the-job reliability when smoke and flame demand it. And they will tell of the confidence they have in its resistance to snagging, puncturing, bursting . . . potential yet unnecessary service hazards.

Jacket of selected long fibre cotton will withstand a tremendous amount of hard wear and rough treatment. Rubber lining is tough, durable, expertly "cured." Flexibility and relative light weight assure easier handling under pressure. Available in all standard sizes.

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WE ARE PARTICIPANTS IN THE OWNERSHIP AND OPERATION OF NATIONAL SYNTHETIC RUBBER CORPORATION

Factory—Trenton, N. J. Established 1870

New York State Chiefs Accept Training Program

THE midwinter meeting of the New York State Association of Fire Chiefs, held at Albany on February 11, voted to accept the program for training volunteer firemen offered by Governor Dewey in 1945.

The proposed program contemplates establishment of a State Office of Fire Training under the Executive Department to be administered by a co-ordinator versed in fire training. The state is to be divided into 40 zones with a fire instructor in each zone and with drill towers and training facilities made available. As far as possible the training will consist of practical evolutions with apparatus.

Initially, two basic courses of five lessons each are planned. Each lesson will last from three to four hours. An advanced course of five lessons, each of two to three hours' duration held monthly, will follow the summer schedule. The total initial program including local drills given by an instructor will consist of twenty lessons. Basic classes will be kept small (twenty to forty men) so that each man will have opportunity to handle the equipment.

It remains to be seen whether the Firemen's Association of the state of New York at its next convention will reverse its position in opposition to this particular fire training plan in favor of a training program administered by the State Education Department.

More About "Wet" Water

THOSE FIREMEN readers who have the March *Reader's Digest* probably saw the article, "'Wet' Water Quenches Most Stubborn Fires," by Paul W. Kearney. Those same readers will undoubtedly recall the article with which FIREMEN scooped the field, "A Way of Evaluating Wetting Agents Used for Fighting Fires," by Alfred N. Henschel, in the March 1946 issue.

Kearney's article, condensed from the *National Safety News*, explains the principle of wet water as follows, "Put ordinary water on a piece of paper with an eye dropper; the individual drops retain their spherical form. Add a wetting agent and the drops instantly spread out and soak into the paper." In fire fighting this means thorough saturation with a much smaller volume of water with rekindling being less likely.

"Going right in" prevents conflagration, keeps small fires small.

Records of about ninety fire runs in a year are overwhelming in favor of high pressure at Rock Falls, Illinois (population 7,500), a factory town where main protection comes from their FMC High-Pressure Fog Fire Fighter.

Rock Falls' Department has achieved wonderful results in controlling fires —so quickly, so efficiently that high pressure does almost *all* the work, keeping small fires small.

PROOF INDISPUTABLE

Fast work saves precious minutes

That's the way it is in other cities, towns and villages using FMC High-Pressure Fog Fire Fighters. They go in fast—save precious minutes at the critical time of the fire—knock it down with very little water—and cause practically no water damage.

Every day, users are showing indisputable proof that high pressure, properly used, works fast to keep potential conflagrations from developing out of small fires.

You owe it to the people you protect to investigate FMC High-Pressure for your Department. Get the facts!

OLIVIA, MINN. *Standard FMC High-Pressure Fog Fire Fighter recently delivered to Olivia Fire Department. Completely equipped to fight fires fast!*

CHASSELL, MICH. *Standard FMC Fog Fire Fighter delivered to Chassell Fire Dept.*

CARTHAGE, ILL. *Standard FMC Fog Fire Fighter delivered to Carthage Fire Dept.*

CASCADE, WIS. *Standard FMC Fog Fire Fighter delivered to Cascade Fire Dept. No. 3.*

UNDERWRITERS' LABORATORIES APPROVED

ROCK FALLS, ILL. *Standard FMC Fog Fire Fighter recently delivered to Rock Falls Fire Dept. No. 1. Carries its own water supply—provides two guns of 30 gallons each—850 lbs. pump pressure—complete in every respect.*

FMC *Original* HIGH-PRESSURE FOG FIRE FIGHTER

CAN BE MOUNTED ON MOST STANDARD TRUCK CHASSIS

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JOHN BEAN MFG. CO. 726 HAZEL ST., LANSING 4, MICH. : BEAN-CUTLER DIVISION, 426 JULIAN ST., SAN JOSE, CALIF.

BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS

TRADE MARK

MEARL FOAM

The all-climate, dependable mechanical foam extinguisher » » » *It flows—covers—seals—extinguishes* » » » Highly effective on oil and gasoline fires—on Class A fires » » » Use with any kind of water—at any temperature—in all makes of equipment.

Write for descriptive bulletin

FIRE OUT... Stays OUT!

THE MEARL CORPORATION
153 Waverly Place, New York 14, N. Y.

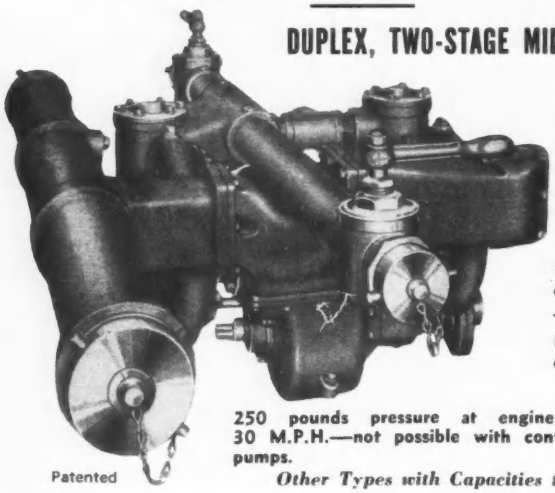
Barton-American Front Mounted

AMERICAN-MARSH PUMPS

Barton-American Midship

FIRE APPARATUS CENTRIFUGAL PUMPS

DUPLEX, TWO-STAGE MIDSHIP MOUNTED



High Pressure performance entirely unaffected when unit used to pump gritty water.

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Impellers mounted on individual shafts—breakdown of one pump still leaves one for service.

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250 pounds pressure at engine speed equal to 30 M.P.H.—not possible with conventional two-stage pumps.

Patented

Other Types with Capacities to 750 G.P.M.

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WRITE FOR BULLETIN 8731F

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AMERICAN MARSH PUMPS, INC., Battle Creek, Michigan
Pumps — and pumps only — since 1873

Explosion Levels Los Angeles Electroplating Plant

TO date the most detailed explanation of the blast that razed a plant with a loss of 17 lives (*see cover*) on February 20 is the following letter from Engineer H. N. Swift, of the Board of Fire Underwriters of the Pacific.

"One of the processes used in the O'Connor plant was that of bright polishing aluminum by electrolysis. The electrolytic process used was the reverse of a plating process, the article to be polished being the anode and the cathode being a pair of aluminum sheets suspended in the solution. The solution was, as far as can be determined at the present time, about a 50–50 solution by weight of perchloric acid and acetic anhydride. This solution was kept cool by brine coils. The process had been in use at the plant since September, 1946, and was originally made up in a 56-gallon crock.

"On February 17, a new stainless steel tank, holding about 300 gallons of the solution, was placed in service. This tank was made of 10-gauge stainless steel and was 6½ feet long, 2½ feet wide, and 3½ feet deep. It had no drain and no cover and was supported off the floor by glass blocks. The tank was lined with a spray application, about 1/64 inch thick, of phenolic resin material. A plastic screen was placed on the bottom of the tank to catch any material or parts that might fall in. There had been some trouble with this screen floating to the surface of the solution, so on the day before the explosion a frame made of a plexiglass-like material had been placed in the tank to keep the screen down.

"At the time of the explosion, the plant was processing aluminum caps for ball bearing fountain pens. These caps were placed in the steel tank, probably in a basket. The caps had been machined to size under oil at some other plant and were sent to O'Connor for brightening.

"There are several theories as to the cause of the explosion. (1) The mixing of the two compounds perchloric acid and acetic anhydride in solution. (2) The plastic screen, being an organic substance, might have brought on the reaction. (3) The refrigeration system may not have been able to keep the solution at a safe temperature. (4) The large amount of metal surface exposed to the solution by the basket of fountain pen caps might have raised the temperature to the critical point. (5)

The most plausible theory seems to be that the articles were not thoroughly degreased and that some oil may have been on the articles as they were placed in solution. As any organic material will react with the solution, this is thought to have brought on the explosion.

"The explosion took place at 9:45 A.M., Friday, February 20. The electrolytic process had been started at 8:30. The blast killed seventeen persons, two of whom have not been found, and demolished six dwellings and a one-story brick warehouse in addition to the electroplating plant. It also damaged 18 dwellings, 4 2-story apartment houses, 1 frame church, 3 brick mercantiles, and 2 frame stores to such an extent that they have been declared unsafe for occupancy. The 4-story re-inforced concrete Siskin Building, located across Pico Boulevard north of the O'Connor plant, received the full force of the blast in that direction and probably saved many buildings in that block. Wired glass and steel sash in this building were blown in and the sprinkler system broken in several places.

"The fire which broke out in the demolished O'Connor building did negligible damage. Loss from the explosion is estimated to be about $2,000,000."

A Tribute

THE VOLUNTEER fire department of Mount Shasta, Calif., has sent to the NFPA office a beautifully colored photograph of Mount Shasta, Calif., with the following message: "This picture is being sent to you by the members of the Mount Shasta Fire Department for the fine work that the National Fire Protection Association has done."

Such a message of appreciation is inspiring to members of the NFPA staff who are proud to be able to serve such fire department members.

Reprint Available

CHIEF J. W. JUST'S article, "What a Fireman Should and Shouldn't Know About Insurance Rates and Underwriters' Label Service," which appeared in the February and March FIREMEN, is available in reprint form at 10 cents a copy.

Orders should be sent to the NFPA Publications Department, 60 Batterymarch Street, Boston 10.

Now MORE FOAM ... Faster ... Easier

With the New PYRENE* Foam System For Motor Pumpers

You can now increase the fire-fighting capacity and efficiency of any booster truck with a Pyrene Air Foam System—and at reasonable cost. Consider these outstanding features:

LARGE FOAM PRODUCTION — Every 100 gallons of water and five gallons of Pyrene Foam Compound produce 1,750 gallons of foam at the rate of 700 gallons per minute.

INCREASED CAPACITY—When beyond the range of hydrants, you can make your water supply go farther—for example, 100 gallons expand to 1,750 gallons of foam.

SPACE ECONOMY—A compact 25-gallon tank of foam compound produces more than 8,000 gallons of foam. Ample capacity for 500 gallon water tank or reserve capacity for smaller tank.

SELF-CONTAINED—Not dependent upon hydrants or suction.

EASY, SPEEDY TO OPERATE — With pump running, simply turn valves; foam compound feeds automatically at proper rate.

FOAM OR WATER — To discharge foam, close valve C, open valves D and E; to discharge water, close D and E, open C.

CONTINUOUS OPERATION — As long as water and compound may be replenished.

LOW COST — Simplified equipment, easily installed.

Pyrene Air Foam is ideal protection for flammable liquid hazards, and when water is scarce, for fires in ordinary combustibles. It is free-flowing, fast-covering, quick-extinguishing. It blankets horizontal and vertical surfaces. Ask your Pyrene fire department jobber or write us for information.

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Pyrene Manufacturing Company
NEWARK 8 • NEW JERSEY
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24-PAGE
BOOKLET
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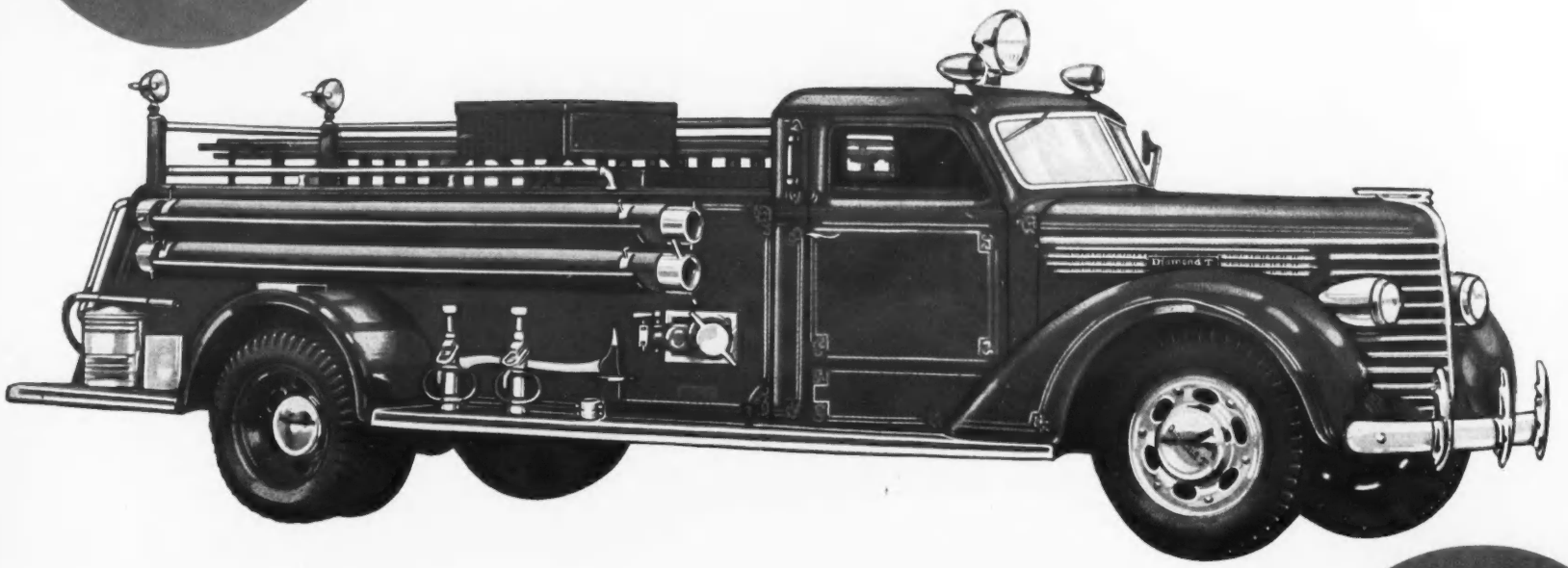
CHAMPIONS



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W. S. DARLEY
and Co.
CHICAGO 12

America's Finest

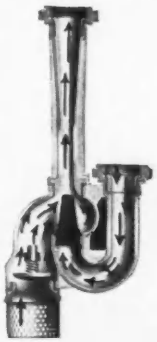
PRESENTING THE CHAMPION LINE

A FIRE PUMP AND FIRE APPARATUS FOR EVERY SERVICE

Try the ACCEL-O-RATE on your own pumper . . for 30 DAYS ! !

If the Model 2½ ACCEL-O-RATE Jet Pump Booster fails to give you over 100 ft. lift and 300 ft. reach — return it for full refund.

The Model 2½ ACCEL-O-RATE is guaranteed to adequately supply a ½" plus a ¼" tip, or their fog nozzle equivalent — hundreds now in use . . . *can't clog . . . won't fail . . .* no moving parts to get out of order . . .



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Nylon Rope for Fire Fighting

BECAUSE nylon possesses definite flameproof and heat-resistant qualities, nylon rope may find an important place among the varied ropes which have long been standard equipment of fire fighting groups. So said Raymond E. Miskelly, head of the research department of the Plymouth Cordage Company (NFPA member), before the Fire Department Instructors' Conference at Memphis last January.

Where a natural fiber rope begins to char at 300° F, nylon will not begin to melt until a flame of about 482° F is applied. When the flame is removed, the melt will harden with little tendency for further burning, whereas the fiber rope will support combustion and burn after the source of ignition has been removed, although the progress of the burning is slow because of the rope density.

Other qualities of nylon which may make it adaptable for fire fighting purposes are its greater tensile strength, elasticity, wear resistance, rot resistance, and resistance to atmospheric exposure. Its higher tensile strength permits the use of a smaller rope for equivalent strength and is a weight saving of special advantage when used as a hand line.

Nylon rope stretches appreciably when loaded and has high elastic recovery when the load is released. For these reasons it should make an excellent safety line or rope for use in safety nets.

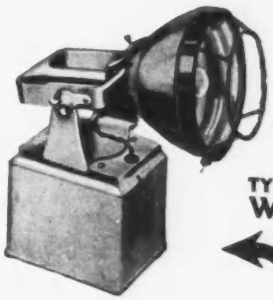
★ ★ ★

Fire Fighters Fail to Get Overtime for 84-Hour Week

THE U. S. Court of Claims, in a lengthy printed decision, has ruled against three civilian fire fighters employed by the War Department who claimed overtime pay on the basis of 84-hour weekly duty at an Army Air Base at Gulfport, Miss.

Under U. S. Government regulations, these fire fighters, who received an annual salary, were classified as intermittent employees because they were engaged in actual work during only a portion of the time covered by each scheduled 24-hour tour of duty. Their actual work week had been classified as 56 hours and the men were receiving overtime pay for 16 hours in excess of 40 hours.

Search-Master



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Here's the latest (No. 725) model of this sturdy plastic helmet, designed to take standard front pieces interchangeable with CAIRNS regulation leather or aluminum helmets. The rugged one-piece construction with embossed reinforcing ribs is retained. The material is light—insulates against heat and electricity—resists crushing or fracture. And of course the FLINT FLEX HELMET has the removable snap-in CAIRNS CUSHION LINING. Prices are moderate—deliveries prompt. Write for Catalog 32A.

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Associate Membership

VOLUNTEER FIRE COMPANY SECTION ($10 annual dues) Eligible:

(1) all bona fide volunteer fire organizations in any community.

(2) all fire departments and companies in communities of less than 25,000 population.

(3) all industrial fire brigades.

Member volunteer fire companies receive ten copies of FIREMEN magazine each month, mailed to the homes of individual firemen. Beyond the ten, additional copies of FIREMEN cost $1 per year.

Volunteer Fire Company Section members, receive, at their headquarters, one copy of all publications sent to NFPA associate members.

ASSOCIATE MEMBERSHIP ($10 annual dues) Eligible: Individual fire department officers, firemen, and others interested in fire safety. NFPA associate members in the fire service receive: one copy of FIREMEN magazine monthly, the NFPA **Quarterly**, the monthly **News Letter**, technical standards, popular bulletins and posters.

All associate members have one vote in Association affairs.

New members of the Volunteer Fire Company Section are:

UNITED STATES

Alpena Fire Dept., Alpena, Mich.
Anaconda Fire Dept., Sycamore, Ill.
Capitol View Fire Co., Morrisville, Pa.
Dade City Volunteer Fire Dept., Dade City, Fla
Highland Fire Co., Highland, Ill.
Hollingsworth Manor, Elkton, Md.
Jay Volunteer Fire Dept., Jay, N. Y.
Marion Volunteer Fire Dept., Marion, Kansas
Mayfield Volunteer Fire Dept., S. Euclid, Ohio
Moffet Field Fire Dept., Moffet Field, Calif.
Ottowa Hills (Village of), Ottowa Hills, Ohio
Perry Twp. Volunteer Fire Dept., Canton 7, Ohio
Pioneer Hose Co., Brackenridge, Pa.
Pocono Twp. Fire Co., Tannersville, Pa.
The Richardson Co., Melrose Park, Ill.
United Rescue Squad, Frederick, Md.

CANADA

Delisle Fire Brigade, Delisle, Sask.
Mackin Fire Brigade, Mackin, Sask.
Robinson Volunteer Fire Brigade, Robinson Cotton Mills, Ltd., Woodbridge, Ont.
Steep Rock Volunteer Fire Brigade, Steep Rock Lake, Ont.

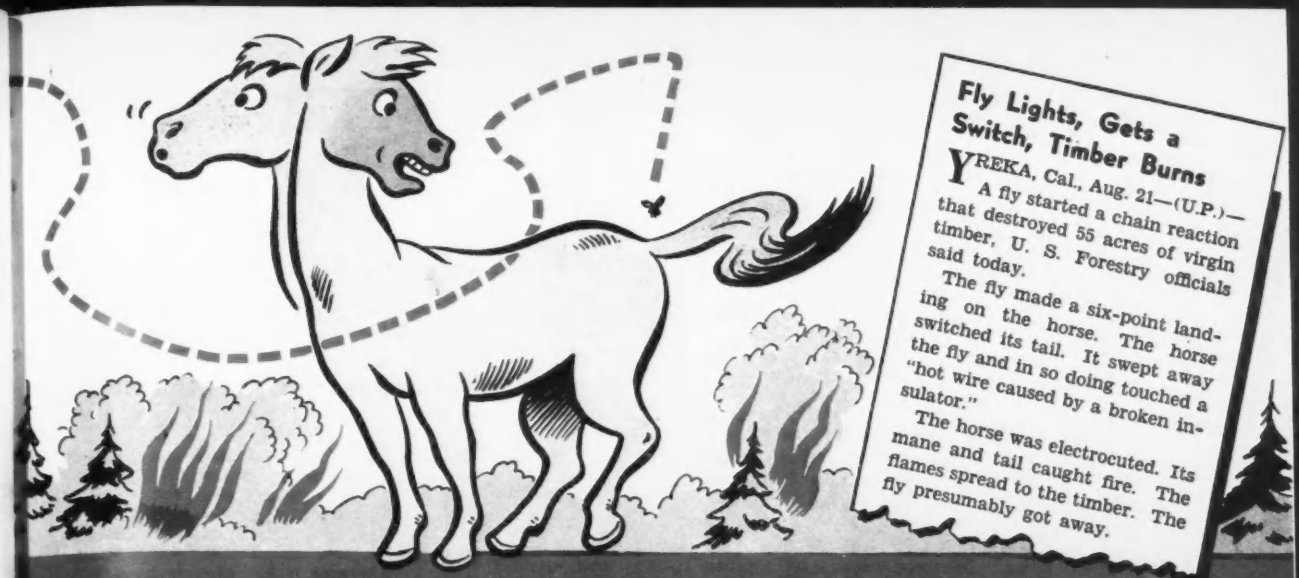
by Hazen Reynolds

"He claims his system beats the life net!"

In Mayfield Village, Ohio

FIREMEN in the big cities may be surprised to know that an active fire company may not necessarily possess a fire truck. The Mayfield Village Fire Department (NFPA member) of Mayfield Village, Ohio, was organized May 15, 1943, to protect a community of 500. The fire company is a very active organization and has taken the state firemen's training course at the university at Kent. Present fire equipment consists of ten extinguishers and smaller appliances. The department is supported by taxes. Firemen receive $3 for alarms and drills that they attend. Special activities include a white elephant sale, turkey raffles, card parties, and Mayfield's Home Day. New equipment planned includes a water tank truck with high pressure pump.

Members of the Bryte Volunteer Fire Department, Calif., new members of the NFPA, are shown with their 250 gpm pumper with a 600-gallon tank that they designed and built on a Chevrolet chassis. They also have a 500 gpm pumper with a 1000-gallon auxiliary tank.



Fly Lights, Gets a Switch, Timber Burns

YREKA, Cal., Aug. 21—(U.P.)—A fly started a chain reaction that destroyed 55 acres of virgin timber, U. S. Forestry officials said today.

The fly made a six-point landing on the horse. The horse switched its tail. It swept away the fly and in so doing touched a "hot wire caused by a broken insulator."

The horse was electrocuted. Its mane and tail caught fire. The flames spread to the timber. The fly presumably got away.

FIRES START IN FUNNY WAYS

INDIAN FIRE PUMPS will always put them out!

u never know what will cause a fire — but if you have plenty of DIAN FIRE PUMPS you can be sure of a fast way to extinguish it.

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An INDIAN RE PUMP is e most efficient, rtable fire fighting tool that 60 rs of manufacturing experience s produce. It e all the advantages you need r fast action.

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We appreciate the compliment . . . but the idea is not sound. Why? Because increased engine speeds and much greater horsepower make it exceedingly impractical to hook up a 1924 pump with a 1947 engine.

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Meteor ambulance rebuilt and refinished 1944. 8-cylinder engine in good running order. New tires and 2 spares. Completely equipped with new stretcher, interior cabinet chairs, siren and blinking light. $2,000. For details write to Atco Vol. Fire Co., Inc., L. Ellwood Sauerwald, Sec'y, Atco, N. J.

AMBULANCE FOR SALE

1938 LaSalle ambulance in excellent condition after only 36,000 miles. Fully equipped with cot, stretcher, siren and fog lights. Inhalator in good condition included if reasonable offer is made for all. Available only because it has been replaced by a 1947 Cadillac. Persons interested should write to Mr. Theo. R. Lamplugh, Chairman, Ambulance Board, Linwood Fire Co. No. 1, Linwood, Pa.

PUMPER FOR SALE

Ahrens-Fox 1000 g.p.m. piston pumper, Model L16, in fine working condition. For details write to the Goodwill Fire Co., Pottstown, Pa.

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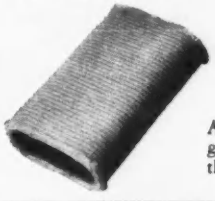

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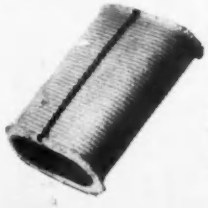

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